

Protective Case For Carrying A Portable Computer Within A Larger Bag

Field of the Invention

[0001] This invention relates generally to bags for carrying portable laptop computers, and more particularly, to a removable protective sleeve and pocket for carrying a portable laptop computer securely within a larger bag.

Background of the Invention

[0002] As computers have become smaller and more portable, the need for protective bags for carrying these laptop computers has largely been met by bags dedicated to that single purpose. Typically, such bags are of the brief case style with built-in padding to protect the laptop computer when being carried. These bags often provide very little room for carrying anything other than the portable computer and its related accessories such as power cords, batteries, storage disks, etc. Moreover, because the protective padding is built in to these bags, they are ill-suited for other uses. It is not practical to use these bags for anything other than or in addition to carrying a portable computer.

[0003] While multi-functional bags have been designed that both carry a portable laptop computer and meet other unrelated needs of the user, these bags invariably sacrifice one goal in favor of the other. For example, some bags include a padded compartment for carrying and protecting a portable computer. However, because the compartment is soft-sided, it does not provide adequate protection for the computer from other contents of the bag. On the other hand, incorporating a hard-sided or rigid compartment within a larger bag would appear to limit the flexibility of the bag for other uses.

[0004] In addition, the range of laptop computer sizes has increased in recent years. Modern laptop 'form factors' vary greatly in size and weight. On one end of the spectrum are

ultraportable (small) laptops; on the other are widescreen and 'desktop replacement' computers. Bag manufacturers have responded to this by offering bags in both smaller and larger sizes. However, because it is standard practice to offer a fixed-size compartment for the portable computer, this often does not meet the needs of the end user. For example, the owner of an ultraportable (small) laptop may wish to carry a large bag to hold the laptop computer and other items such as books or clothes. However, if the laptop compartment is a fixed size, in order to limit movement of the laptop, the user must cushion the computer with foam blocks or dividers, which waste space. Alternatively, the user risks damage to the computer from excessive movement within the compartment, or he/she must settle for using a smaller bag.

[0005] In addition, due to increased security, it is also important for the user to have the ability to remove their computer quickly and easily at locations such as airport x-ray checkpoints. Computer bags that hold the laptop in place with complicated strap systems greatly hinder the ability of the user to access the laptop.

[0006] Therefore, it is an object of this invention to provide a protective case for carrying a portable laptop computer within a larger bag that both ensures adequate protection for the computer while maximizing the flexibility of the larger bag for separate or additional uses.

[0007] It is a further object of this invention to provide a protective case for carrying a portable laptop computer within a larger bag that includes a rigid pocket that can be removably attached inside the larger bag.

[0008] It is a further object of this invention to provide a protective case for carrying a portable laptop computer within a larger bag that includes a removable padded sleeve that fits within the rigid pocket and attaches to it. It is also an object of this invention to provide a removable padded sleeve that can be used to carry the portable computer independent of the larger bag.

[0009] It is a further object of this invention to provide a protective case for carrying a portable laptop computer within a larger bag that can be positioned within the bag at varying locations depending upon the particular needs of the user.

[0010] It is a further object of this invention to provide a protective case for carrying a portable laptop computer within a larger bag that is modular and sized to fit a particular type, brand or model of portable laptop computer, thereby enabling a user to securely carry laptop computers of varying sizes within a single larger bag and to mix and match various bags, pockets and sleeves depending upon need.

[0011] These and other objects of the invention will be more readily apparent when considered in reference to the following description and accompanying drawings.

Summary of the Invention

[0012] According to this invention, a protective case for carrying a portable laptop computer within a larger bag is provided having a hard-sided or rigid pocket and a padded sleeve. The pocket attaches to the inside of the larger bag. The sleeve securely holds the portable computer and fits within the pocket. Together, the rigid pocket and padded sleeve protect the portable computer from damage while the computer is being carried within the larger bag. The pocket and sleeve also protect the portable computer from damage caused by the other contents of the larger bag. The pocket and sleeve, which can be sized to fit a particular type, brand or model of portable laptop computer, can be quickly and easily removed from the larger bag. This allows a user to install different sized pockets and sleeves within the same larger bag, and allows a modular system for carrying a portable laptop computer with which the user can mix and match bags, pockets and sleeves depending upon need. It also frees the larger bag for uses other than the carrying of a portable computer.

Brief Description of the Drawings

[0013] The invention may be more readily understood by reference to the drawings in which:

[0014] **FIG. 1** is a view of one embodiment of the rigid pocket attached to the inside panel of a larger bag.

[0015] **FIG. 2** is a view of the back of the rigid pocket of **FIG. 1** detached from the larger bag.

[0016] **FIG. 3** is a view of one embodiment of the padded sleeve.

[0017] **FIG. 4** is a view of the padded sleeve of **FIG. 3** inside the rigid pocket of **FIG. 2** with the closing flap of the padded sleeve in the open position.

[0018] **FIG. 5** is a view of the padded sleeve and rigid pocket of **FIG. 4** with the closing flap of the padded sleeve in the closed position and with the rigid pocket attached to the inside panel of a larger bag.

Detailed Description of the Invention

[0019] A preferred embodiment of the present invention is shown in **FIGS. 1** through **5**. **FIG. 1** is a front view of the rigid pocket **10** of the preferred embodiment attached to the inside panel **12** of a larger bag **14**. The term “pocket” is used here to refer to any four-sided structure, including one or more attachment faces, that when attached to the inside panel of a larger bag is of sufficient dimension to accommodate a padded sleeve containing a portable laptop computer. The pocket consists of four sides or panels: a front panel **16**, two side panels **18**, and a bottom panel **20**. In addition, the preferred embodiment includes two attachment faces **22** and **24** on the back side of the pocket that provide a surface for attaching the pocket to the inside panel **12** of the larger bag. The attachment faces **22** and **24** can be of varying size and number and need not extend the length of the two side panels as shown in **FIG. 1**. An alternative embodiment comprises one or more additional attachment faces extending from the bottom panel **20**. Further

alternative embodiments comprise an attachment face or faces that extend across the rear side of the pocket connecting the two side panels **18**, or an attachment face that spans the entire rear side of the pocket.

[0020] The pocket can be of varying sizes and orientations, and can be sized to fit a particular type, brand or model of portable laptop computer. The pocket of the preferred embodiment depicted in FIGS. **1**, **2**, **4** and **5**, which is sized to fit a rectangular laptop computer, is oriented such that the narrow end of the rectangular-shaped padded sleeve containing the computer slides into the pocket. Depending upon the shape of the larger bag, an alternative embodiment of the pocket is oriented such that the wide end of the padded sleeve and computer slides into the pocket.

[0021] The rigid pocket is comprised of any number of commercially available rigid materials. Examples include various types of plastic, metal, wood, ceramic, fiberglass or carbon fiber, although materials such as plastic that are both light and rigid are preferred. The term “rigid” is used here to refer to any material that resists bending or flexing. However, the term is not meant to exclude materials that are susceptible to some minimal degree of flexing, particularly when direct pressure is applied, for example, to the middle or upper middle of the front panel **16** of the pocket. The pocket, including the attachment faces, is preferably made of a single molded piece of rigid material, such as plastic. Alternatively, it is made of individual panels of rigid material, corresponding to the four panels of the pocket, that are connected together by, for example, being sewn into a cloth or canvas pocket. The rigid panels of the pocket also can have holes or slits as long the integrity of the pocket as a whole is not compromised.

[0022] While in the preferred embodiment, the attachment faces **22** and **24** are made of the same rigid material comprising the four panels of the pocket, they need not be. The attachment faces

can be made of any commercially available material, hard or soft, that is of sufficient strength to securely hold the pocket in place when attached to the inside panel of a larger bag.

[0023] FIG. 2 is a view of the back of the rigid pocket of FIG. 1 detached from the larger bag.

The pocket is removably attached via the attachment faces **22** and **24** to the inside panel of the larger bag. The preferred embodiment includes Velcro strips **26** and **28** on the attachment faces for attaching the pocket to the inside panel of the larger bag. In alternative embodiments, the pocket is attached using snaps or any other commercially available means that allows the user to attach and remove the pocket from the larger bag with relative ease.

[0024] FIG. 3 is a view of the padded sleeve **30** of the preferred embodiment. This particular embodiment includes a closing flap **32**. The closing flap includes a Velcro strip **34** on the inside panel. When the closing flap is secured in the closed position, Velcro strip **34** attaches to the companion Velcro strip **36** located on the front panel **38** of the padded sleeve. The closing flap can also be secured in the closed position by numerous alternative means including, but not limited to, one or more snaps, buckles, or magnetic clasps, or any other means that allows the user to securely close the flap with relative ease. While a closing flap is preferable, the laptop computer can also be securely held within the padded sleeve by one or more straps that close over the sleeve opening **40**.

[0025] The preferred embodiment of the padded sleeve is made of nylon and padded with foam, but the sleeve can be made of any number of well known and commercially available fabrics and paddings, such as, for example, canvas, cloth and Styrofoam. The padded sleeve can be of varying sizes and orientations, and can be sized to fit a particular type, brand or model of portable laptop computer. The padded sleeve depicted in FIGS. 3, 4 and 5, which is sized to fit a rectangular laptop computer, is oriented such that the laptop computer slides end first into the

sleeve opening 40. Alternatively, the opening in the padded sleeve could be sized to accommodate the longer either front or rear edge of the portable computer. It will be evident that there are numerous other embodiments of the padded sleeve according to the invention that both provide padded protection to all sides of the enclosed portable computer and fit within the rigid pocket.

[0026] FIG. 4 is a view of the padded sleeve 30 inserted into the rigid pocket 10 of the preferred embodiment. As shown in this embodiment, the closing flap 32 of the padded sleeve 30 closes against the front panel 16 of the pocket 10 when the padded sleeve is inserted into the pocket. This ensures that the sleeve remains in the pocket while the larger bag is being carried. Thus, the closing flap 32 closes against the front panel 38 of the sleeve when the sleeve is outside the pocket, and closes against the front panel 16 of the pocket when the sleeve is inside the pocket.

[0027] The padded sleeve slides with ease into and out of the rigid pocket and, in some embodiments, can be used to carry a portable laptop computer independent of the pocket and larger bag. The sleeve may include its own carrying strap such as a handle or shoulder strap. When the padded sleeve is fully inserted into the rigid pocket, the trailing end or top end of the sleeve need not be flush with the opening of the pocket. It can be slightly below the opening of the pocket, or it can, as in the preferred embodiment, extend slightly beyond the opening of the pocket.

[0028] As shown in FIG. 4, the front panel 16 of the pocket includes a Velcro strip 42 to which the Velcro strip 34 on the closing flap 32 attaches when the sleeve is inserted into the pocket and the closing flap is in the closed position. As described above, the closing flap can be secured against the front panel of the pocket by numerous alternative means including, but not limited to,

one or more snaps, buckles or magnetic clasps, or any other means that allows the user to securely close the flap against the pocket with relative ease.

[0029] In alternative embodiments, the sleeve is inserted into the pocket with the closing flap 32 closed against the front panel 38 and Velcro strip 36 of the sleeve.

[0030] FIG. 5 is a view of the pocket 10 attached to the inside panel 12 of a larger bag 14. The padded sleeve 30 is inside the pocket 10, and the closing flap 32 is closed against the pocket 10. While in this particular embodiment, the larger bag is a backpack, any other bag type, such as, for example, a courier bag, can be used as long as it is large enough to accommodate a pocket attached to an inside panel. As addressed above with respect to FIGS. 1 and 2, the pocket can be attached using Velcro, snaps, or any other means that allows the user to attach and remove the pocket from the larger bag with relative ease. Preferably, the pocket is attached high enough on the inside panel 12 of the larger bag to leave a gap between the bottom panel 20 of the pocket and the bottom panel 44 of the larger bag. This suspends the padded sleeve and portable laptop computer inside the larger bag, thereby protected the computer from accidental drops.

[0031] Moreover, according to the preferred embodiment of the invention, the inside panel 12 of the larger bag is designed to accommodate the pocket in multiple positions and to accommodate different sizes of pockets depending upon the needs of the user. Ideally, the inside panel 12 is comprised of a continuous layer of commercially available Velcro-compatible fabric. This affords the user maximum flexibility in placing and attaching a pocket that has Velcro on its attachment faces. This also provides a modular system of bags, pockets and sleeves that can be mixed and matched to accommodate different sizes of portable laptop computer and different sizes of bag depending upon the needs of the user. With such a modular system, for example, a user can purchase a single pocket and sleeve sized to fit a particular portable laptop computer

and then use that same pocket and sleeve in any number of different bag types depending upon need. In addition, if the user replaces his or her personal computer with one of a different size, they need only replace the pocket and sleeve.

[0032] Those skilled in the art will appreciate that the invention described herein is susceptible to variations and modifications other than those specifically described. It is to be understood that the invention includes all such variations and modifications.